

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

REMARKS AND ARGUMENTS

The present application includes claims 1, 3-8, 10-15 and 17-20. Claims 1, 3-8, 10-15 and 17-20 were rejected in the March 17, 2004 Office Action. Claims 1 and 3-6 were objected to in the March 17, 2004 Office Action. Claims 1, 7 and 14 have been amended.

Claim 1 is amended to change "fully processed" to "fully preprocessed" in accordance with Examiner's objection. Claim 1 is also amended to recite receiving raw image data from an imaging modality at the image acquisition workstation and where at least one of the preprocessing functions is applied to the partially preprocessed raw image data at a display workstation.

Claim 7 is amended to recite an imaging modality interface for receiving raw image data at the image acquisition workstation. Claim 7 is also amended to recite wherein at least one of the preprocessing functions is applied to the partially preprocessed raw image data at a display workstation.

Claim 14 is amended to recite an imaging modality interface coupled to the imaging modality for receiving raw image data at the image acquisition workstation. Claim 14 is also amended to recite wherein at least one of the preprocessing functions is applied to the partially preprocessed raw image data at a display workstation.

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

Claim 1 was rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Claims 1-3, 5, 7-10, 12, 14-17 and 19 were rejected under 35 U.S.C. § 102(a) as being anticipated by Huang, *PACS: Basic Principles and Applications*.

Claims 4, 6, 11, 13, 18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang in view of Takeo et al. (U.S. Patent No. 6,231,246).

Rejections under 35 U.S.C. § 112, ¶ 2

The Applicant first turns to the rejection of claim 1 under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The Applicant has amended claim 1 to change "fully processed" to "fully preprocessed." Therefore, the Applicant respectfully submits that claim 1 should be allowable.

Rejections under 35 U.S.C. § 102(a)

The Applicant next turns to the rejection of claims 1-3, 5, 7-10, 12, 14-17 and 19 under 35 U.S.C. § 102(a) as being anticipated by Huang. Huang discloses an image acquisition gateway computer that acquires images from different imaging modalities (Huang, Ch. 8.1, page 199, lines 1-3). Once the raw image data is received at the

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

acquisition computer, a sequential progression of processing functions are applied to the raw image data (Huang, Ch. 8.8.1, pages 224-225). That is, a first processing function is applied to the image data to create partially processed image data, followed by the application of additional processing functions in sequence to the partially processed image data (Huang, Ch. 8.8.2, page 226, paragraph 2).

Furthermore, the display workstations of Huang do not perform any preprocessing of the image data. The only functions the display workstations perform is the processing of the image data, which is differentiated from the preprocessing of the image data by Huang (Huang, Ch. 12.3.1, page 320, paragraph 1).

In this way, Huang merely discloses two basic workstations - an acquisition workstation and a display workstation (Huang, Ch. 8.1, page 199, lines 1-3; Ch. 12.3.1, page 320, paragraph 1). The acquisition workstation acquires raw data and performs all preprocessing of the image data (Huang, Ch. 8.8.1, pages 224-225). The display workstation merely performs processing of the fully preprocessed image data, which is differentiated from the preprocessing of image data (Huang, Ch. 12.3.1, page 320, paragraph 1). Therefore, under Huang, image data is fully and completely preprocessed at the acquisition workstation and no additional preprocessing occurs at the display workstation.

However, Huang does not teach the receipt of raw image data at an image acquisition workstation, where at least one preprocessing function is applied to partially

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

preprocessed raw image data at a display workstation, as recited in claims 1, 7 and 14. As described above, Huang discloses that all preprocessing of image data occurs at the acquisition computer, and no preprocessing occurs at a display workstation (Huang, Ch. 8.8.1, pages 224-225). While the image data may be "partially processed" at times between sequential preprocessing steps occurring at the acquisition computer, at no time after image data leaves the acquisition computer is additional preprocessing applied to the image data (Huang, Ch. 12.3.1).

In the March 17, 2004 Office Action, the Examiner stated in her Response to Arguments section that "Performing preprocessing function of the image data at a display workstation is not recited in the claims" (March 17, 2004 Office Action, page 7). The Applicant has amended claims 1, 7 and 14 to recite applying a preprocessing function to image data at a display workstation. Thus, the Applicant respectfully submits that Huang does not teach elements of at least claims 1, 7 and 14.

In addition, in the March 17, 2004 Office Action, the Examiner stated in her Response to Arguments section that "Huang discloses the claimed limitation of applying a preprocessing function to a partially preprocessed raw image data at a workstation (Page 225-226, Sect. 8.8.2)" (March 17, 2004 Office Action, page 7). However, as described above, once raw image data is received at the acquisition computer, a sequential progression of preprocessing functions are applied to the raw image data (Huang, Ch. 8.8.1, pages 224-225). That is, a first processing function is applied to the

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

image data to create partially processed image data, followed by the application of additional processing functions in sequence to the partially processed image data (Huang, Ch. 8.8.2, page 226, paragraph 2).

Yet, as stated above, Huang merely discloses the sequential progression of preprocessing at the acquisition computer, which does not constitute preprocessing at a display workstation (Huang, Ch. 8.8.2, pages 225-226; Ch. 12.3.1, page 320, paragraph 1). Therefore, the Applicant respectfully submits that Huang does not teach elements of at least claims 1, 7 and 14.

In addition, in the March 17, 2004 Office Action, the Examiner stated that "Huang discloses databases but does not appear to explicitly specify a preprocessing and an image database, however, it would be inherent to include a preprocessing database and an image database, the preprocessing database utilized for storing the partially preprocessed raw image data, the image database utilized for storing a fully preprocessed image data" (March 17, 2004 Office Action, page 4). Moreover, the Examiner stated, "The arguments analogous to those presented above for claim[s 1 and 7] are applicable to claim[s 3, 5, 7, 10, 12, 14, 17 and 19]" (March 17, 2004 Office Action, pages 4-5). The Applicant respectfully traverses the Examiner's assertion that an element present in claims, but missing from the Huang reference is inherently present. According to the Manual of Patent Examining Procedures (the "MPEP"),

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

(MPEP § 2112, citing *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999)). The Applicant respectfully submits that the mere possible disclosure of databases in Huang does not make clear that a preprocessing and an image database would be necessarily present or that such databases would be so recognized as necessarily present by persons of ordinary skill. Moreover,

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art.

(MPEP § 2112, citing *Ex parte Levy*, 17 U.S.P.Q. 2d 1461, 1464 (B.P.A.I. 1990) (emphasis in original)). The Applicant respectfully submits that the Examiner has not provided any basis in fact or technical reasoning to support the determination that a preprocessing and an image database would necessarily flow from the disclosure of Huang.

In addition, to the extent that the Examiner may support the above assertion with Official Notice, the Applicant respectfully requests substantiation of such Official Notice.

Therefore, the Applicant respectfully submits that Huang does not teach either a preprocessing and an image database, as recited in claim 1, or transmitting partially

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

preprocessed image data for storage in a preprocessing database, as recited in claims 7 and 14.

The present rejection encompasses claims 1-3, 5, 7-10, 12, 14-17 and 19. The Applicant respectfully submits that Huang does not teach elements of at least claims 1, 7 and 14. Claims 2-3, 5, 8-10, 12, 15-17 and 19 depend from claims 1, 7 and 14. Therefore, the Applicant respectfully submits that claims 1-3, 5, 7-10, 12, 14-17 and 19 should be allowable.

Rejections under 35 U.S.C. § 103(a)

The Applicant next turns to the rejection of claims 4, 6, 11, 13, 18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Huang in view of Takeo. Takeo describes a method and apparatus for reproducing an image via two image reproducing devices wherein gradation and/or sharpness correction is performed for both images reproducing devices. Specifically, Takeo describes a method and apparatus that receives an image signal, applies a first processing condition to the image signal for display on a computer screen, applies a second processing condition to the image signal for printing the image on film, stores these two processing conditions, displays the image on the computer screen and prints the image on film (col. 5, lines 64-68; col. 6, lines 1-31).

However, Takeo does not remedy the shortcomings of Huang, as described above. Specifically, Takeo does not teach or suggest the application of a preprocessing function

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

to partially preprocessed raw image data at a display workstation, as recited in claims 1, 7 and 14. The image processing conditions of Takeo fully process the image data for display on two different devices (col. 5, lines 64-68; col. 6, lines 1-31). Takeo does not teach or suggest the application of any preprocessing function at a display workstation at all.

In addition, Takeo also fails to teach or suggest a preprocessing and an image database, as recited in claim 1, or transmitting partially preprocessed image data for storage in a preprocessing database, as recited in claims 7 and 14. As stated above, Takeo does not teach or suggest any preprocessing at all. Conversely, Takeo merely discloses two different instances of complete and total processing of image data (col. 5, lines 64-68; col. 6, lines 1-31). Therefore, the Applicant respectfully submits that Takeo also does not teach or suggest elements of at least claims 1, 7 and 14.

Moreover, assuming for the sake of argument that one would be motivated to combine Huang and Takeo, the combination would similarly fail to teach or suggest elements of at least claims 1, 7 and 14. As stated above, neither Huang nor Takeo teach or suggest the application of a preprocessing function to partially preprocessed raw image data at a display workstation, as recited in claims 1, 7 and 14. Similarly, as stated above, neither Huang nor Takeo teach or suggest either a preprocessing and an image database, as recited in claim 1, or transmitting partially preprocessed image data for storage in a preprocessing database, as recited in claims 7 and 14. Therefore, as elements of at least

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

claims 1, 7 and 14 are not taught or suggested by Huang and Takeo, alone or in combination, the Applicant respectfully submits that a combination of Huang and Takeo, fails to teach or suggest elements of at least claims 1, 7 and 14.

The present rejection encompasses claims 4, 6, 11, 13, 18 and 20. The Applicant respectfully submits that neither Huang nor Takeo, alone or in combination, teach or suggest elements of claims 1, 7 and 14. Claims 4, 6, 11, 13, 18 and 20 depend from claims 1, 7 and 14. Therefore, the Applicant respectfully submits that claims 4, 6, 11, 13, 18 and 20 should be allowable.

Therefore, the Applicant respectfully submits that the claims of the present application should be allowable over the prior art.

Application No. 09/473,638
Attorney Docket No. 15-IS-5286
Amendment dated May 12, 2004
Reply to Office Action of March 17, 2004

CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 50-2401.

Respectfully submitted,

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